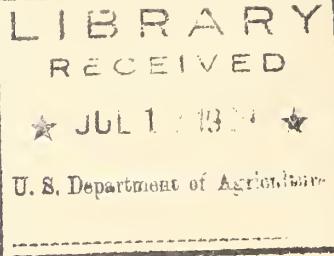


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## THE WEATHER BUREAU AND YOU

A radio talk by Prof. C. F. Marvin, Chief, U. S. Weather Bureau, delivered through WRC and 30 other stations associated with the National Broadcasting Company, 2:00 p.m., Tuesday, July 9, 1929.

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Not long ago a charming young girl, just beginning newspaper work, called at my office here in Washington. She was seeking facts for a story on how the Weather Bureau serves the people of the United States.

My first answer was that she had taken upon herself a very large task. But here am I today trying to do the same thing--- in 10 minutes.

We have to go back more than 50 years to start the story of the Weather Bureau. In 1870 it began as part of the work of the Signal Corps of the Army. In 1891 it was transferred to the Department of Agriculture and was made responsible for, (I quote part of the language of the act of Congress) "forecasting the weather, issue of storm warnings, [and] display of weather and flood signals for the benefit of agriculture, commerce and navigation." In 1896 the term "navigation" in this description of Weather Bureau duties was enlarged to include air navigation.

So the United States, for nearly 60 years, has been developing, in the Weather Bureau, a systematic and continuous meteorological service in the interests of agriculture, commerce and navigation. You can judge of the growth of the service since its creation in 1870 with an appropriation of \$15,000 when I tell you that on the first of this month the Bureau began the expenditure of its present appropriation of over \$3,000,000 for this fiscal year.

Aiding agriculture always has been of great importance in the work of the Weather Bureau. But slow rural communication until very recently made it one of our most difficult tasks. Even since the days of rural delivery, mails in many cases were too slow to get forecasts and warnings to the farms quickly enough. Before the advent of the telephone very few farmers were within range of the telegraph offices. But about 1900, when rural telephone lines became fairly numerous, we began real weather service to farmers. Doubtless many of you used or still use those forecasts and warnings telephoned at 10 o'clock each morning over all the lines running from a central board. At one time we were serving about 7,000,000 rural telephone subscribers in this way, giving them the daily forecast within an hour or two after it was issued. Although the use of radio has supplanted this service in some places, it still is a most effective method.

You probably know about another way of serving agricultural communities. That is, through the postmaster or other person in the small town. We telegraph to him the forecasts; he stamps them on cards and distributes them, or sends them through the local telephone system. Every day we send about 1,000 telegrams of this sort, and directly serve about 50,000 persons with them. But this form of service also is yielding to radio.



In the short space of eight years, this new method of communication by radiophone has become the most effective means of getting into immediate touch with farmers and placing in their possession, promptly and effectively, not only the daily forecasts of weather conditions, but warnings of frosts, cold waves, and floods. Nearly 200 broadcasting stations of the country cooperate in this radio distribution. All of them announce the forecasts on published schedules at least once a day, and many of them several times a day. In emergencies, when unusually serious conditions are expected, many of these stations break other programs to give weather announcements.

That is a sketchy picture of the service to agriculture we are able to give with the help of the communications companies and of public-spirited individuals. The question of reaching commercial activities with our service has never involved difficulties of communication. Commercial concerns are largely centered in and about cities. There are first-order Weather Bureau stations in about 210 cities of the United States. All are centers of service in charge of trained meteorologists who are available every day in the year to issue weather data, forecasts, and advices of the various kinds required by business men and the general public. Most of these offices issue maps and bulletins. During the winter months all of them, except those in the extreme south, send special forecasts to shippers of perishable products. These special reports show lowest temperatures to be expected in the next 24 hours for distances of 200 to 300 miles in every direction from the point of shipment.

Commercial concerns use the telephone liberally to get detailed information on weather when existing conditions give them cause for alarm. In a large commercial city telephone calls on the weather man frequently exceed 1,000 during the forenoon and afternoon when a cold wave or a severe storm has been forecast.

All classes of industry need and use weather information, including some industries that you might not at first think could use it. I suppose all of you will agree that shipments of copper ore, for example, would be completely immune from any ill effects of the weather. Let me tell you, however, what actually happened some years ago to a number of open cars of copper ore moving southward from the Lake Superior mines. In the first part of their journey they passed through a spell of heavy, wet snow. Then through a severe cold wave, which literally transformed the open carloads of wet snow and ore into solid masses, so that unloading at destination became a difficult matter. Thus, you see, even shippers of copper ore find weather information of benefit.

I have now told you some of the facts of Weather Bureau services to commerce and industry. The third major duty of the Bureau is to aid navigation -- to help reduce the heavy toll of damage and disaster to ships at sea directly and indirectly due to storms.

For many years, in giving warnings of storms to ships, main dependence had to be placed on providing ship masters with the information before they left port. This we did, and still do, by the display of storm warning flags by day and lanterns by night at all the principal ports and at coastwise points. Nothing could be done for them after they left the sight of land. Radio revolutionized this service and made it possible to advise shipmasters on the high seas



of the coming of storms. This service started with the development of radio telegraphy back at the turn of the twentieth century. Since 1904 when the first storm warning for ships was broadcast by wireless, it has been a regular form of service, constantly expanding until at present weather bulletins are daily broadcast from 49 shore radio stations in the United States and its possessions, most of them operated by the Navy Department.

Weather is the outstanding factor that must be reckoned with in navigation of the air. A highly specialized form of meteorological service is required. This is being given by the Weather Bureau along the established airways of the country, but this service is so intricate in details that I cannot attempt to describe it now.

Thus far I have not mentioned the channel through which the general public is most largely served. For this we are indebted to our good friends-- the newspapers. All State forecasts, warnings of cold waves, floods, storms, and hurricane and weather bulletins are furnished the press associations as soon as they are issued and are promptly distributed to the newspapers in their organizations. They serve millions. I know of no daily newspaper in the United States having telegraphic news that does not contain the weather forecasts.

In this brief talk I have mentioned only the broad features of Weather Bureau work. We hope to tell you more about some of the specialized lines of work in later broadcasts on this program. My object today is simply to outline for you the services which your Government maintains in the way of weather information, forecasts, and warnings. It may be that you have some special problems connected with the weather with which we can help you -- we won 't guarantee to make rain, or to avert frosts, but we'll be glad to serve you in any possible way.

Little by little during the more than 50 years of its existence the Weather Bureau has become one of the most useful and most used branches of the Government. It fully realizes that, like all other human agencies, it is not yet quite 100 per cent perfect. In the past press writers rarely allowed the opportunity to escape to poke fun at "Old Probabilities" as the Bureau was facetiously dubbed. The jokes are diminishing in number, but I hope they never cease completely. That will be an indication that men have quit interesting themselves in the weather, and on that dismal day we will have become automatons, not human beings.

